



White-tailed Deer Management Plan Valley Forge National Historical Park Frequently Asked Questions – 2018

What is the purpose of the Deer Management Plan?

The purpose of the White-tailed Deer Management Plan/Environmental Impact Statement (plan/EIS) is to provide an effective deer management strategy that supports long-term protection, preservation, and restoration of native vegetation, wildlife, and other natural and cultural resources in the park. The secondary purpose of the plan/EIS is to provide a chronic wasting disease (CWD) response strategy that is fully integrated with deer management and that will reduce the probability of occurrence, promote early detection, and reduce the probability of spread of CWD.

What was the problem with deer in the park?

Browsing of tree and shrub seedlings by an increasing deer population over the last three decades had prevented the ability of native forests to grow and mature. In a self-sustaining forest of this age (about 80 years) you should see a mix of tree seedlings, sapling trees, young trees, and mature trees - a range of ages and sizes. You would see an abundant and diverse herbaceous (or non-woody) plant layer, including a variety of ferns and wildflowers. You would see a dense understory of native shrubs. This layer of the forest, often called the forest understory, provides important habitat for a variety of animals. At Valley Forge, however, this vital mix of plants that makes up the forest understory was missing and the forests were in trouble. Deer were so dominant in the environment that there was little or no habitat for a whole range of wildlife species that depend on the understory for survival.

How many deer were in the park before the Management Plan?

In 2009, the deer population was estimated to be 241 deer per square mile (1,277 individual deer in the park). The number of deer in the park had steadily increased since the mid-1980s when the population size was estimated to be 31 to 35 deer per square mile (165 to 185 individual deer in the park).

What does the NPS think is the ‘right’ number of deer?

Plan success is not measured by the number of deer but on the success of forest regeneration. Therefore, the “right” number of deer will be determined by the ability of forest to regenerate. The initial target deer density is 31 to 35 deer/square mile (165 to 185 individuals). This is the number of deer that were present in the park in 1983-1986 when the health of the park plant community was described as “excellent.” Other agencies and researchers recommend densities ranging from 10 to 40 deer per square mile to ensure forest regeneration. The target deer

density for the park may change (up or down) based on the results of vegetation monitoring in park forests.

What is the current number of deer in the park?

The current deer population is estimated to be about 199 individuals or 38 deer per square mile, which is slightly higher than the target 31-35 deer per square mile. The park will reduce and maintain the deer population within this initial target range until and unless forest monitoring indicates the population target should be adjusted.

What is the selected alternative and what management actions are included?

The NPS selected Combined Lethal and Nonlethal Actions, which was identified as the NPS preferred alternative in the Final plan/EIS. This alternative includes vegetation and deer population monitoring, maintenance of small fenced areas, roadkill removal, public education, coordination with the Pennsylvania Game Commission (PGC), and CWD monitoring and response. In addition, the selected alternative incorporates lethal and nonlethal actions to quickly reduce and then maintain the deer population at a level in the park that protects native plant communities and promotes forest regeneration and habitat.

Lethal reduction via sharpshooting has been used to quickly reduce the deer population and achieve the initial deer density goal. When an acceptable reproductive control agent becomes available, maintenance of population levels will be conducted via reproductive control. Until an acceptable and effective reproductive control agent becomes available, however, population maintenance is conducted using lethal methods.

Currently CWD does not occur in the park. If a confirmed case of CWD were detected within five miles of the park boundary or the park fell within a state-established CWD containment zone, then the park would use lethal removal actions to manage the population regardless of the availability of an acceptable reproductive control agent. Lethal removal actions would continue until CWD monitoring, conducted for a period of time consistent with current knowledge of the environmental persistence of CWD infectious agents, revealed no additional CWD-positive deer within the park. At that time, if an appropriate reproductive control agent were available, the park would maintain the population using reproductive control. Additionally, during the CWD response, a one-time population reduction action could be implemented to achieve a deer density of not fewer than 10 deer per square mile. This action would be based on the success of state agencies in lowering deer densities in areas surrounding the park for the purposes of disease management.

Was the public involved in the decision-making process for the Management Plan?

Many public agencies, federal, state, and local governments, nonprofit organizations, institutions, and individual citizens have an interest in deer management at Valley Forge NHP. Reaching out to these interested parties for their ideas and expertise and listening to their concerns was an important step in the development of the plan. A combination of activities, including internal workshops, four public meetings, a project web-site, brochure, and over 90 briefings to civic organizations, local elected officials, and others helped the NPS gain important

guidance in developing alternatives for the deer management plan.

A Notice of Intent to prepare a White-tailed Deer Management Plan/Environmental Impact Statement (EIS) was published in the *Federal Register* on September 7, 2006, initiating a 90-day public scoping period between September 7, 2006 and December 8, 2006. Two public scoping meetings were held on November 8 and 9, 2006. A total of 365 public comments were received during the scoping period. These comments were taken into consideration during identification and development of the alternatives that were presented in the Draft plan/EIS. The Draft plan/EIS, containing four alternatives for management, was available for a 60-day public and agency review from December 19, 2008 through February 17, 2009. Two public meetings to present the plan and obtain additional comments were held on January 14 and 15, 2009. A total of 3,884 public comments were received on the Draft plan/EIS. Each comment was carefully evaluated and changes to the plan were made, if appropriate. Changes to the Draft plan/EIS as a result of public comment comprised factual updates to baseline data and clarifications added to the text. Appendix E: Review of White-tailed Deer Reproductive Control, was substantially updated to more accurately reflect the current state of the science and comments received through peer review. No substantive changes were made to the preferred alternative or other alternatives evaluated. A summary of public comments and NPS responses is contained in Appendix F of the Final plan/EIS.

Is the decision final?

Yes, the NPS selected a final deer management alternative and the decision is final. The Record of Decision documents NPS approval of the plan, selects the alternative to be implemented, and sets forth stipulations required for implementation. It was signed by the NPS Northeast Regional Director on October 1, 2009.

When did the park start to implement the deer management plan?

The plan was first implemented in November 2010 and is on-going. As of October 2018, 2079 deer have been removed from the park. Meat resulting from this action was donated to the Central Pennsylvania Food Bank and provided to food pantries, soup kitchens, and other organizations throughout Pennsylvania. Over 66,000 pounds of venison (or approximately 199,000 meals) have been donated so far. A total of 953 deer have been tested for Chronic Wasting Disease (CWD), and all of these deer tested negative for the presence of the disease.

Why is chronic wasting disease (CWD) included as part of the deer management plan?

At the time the plan was developed, a risk assessment revealed that the park was at high risk for CWD occurrence. CWD is highly likely to occur where there are dense populations of deer, which the park had in 2010. Also, the disease, previously believed to be isolated in the west and mid-western regions of the U.S., jumped to West Virginia and New York in 2005. Although CWD did not occur yet in Pennsylvania when the plan was first implemented in 2010, the NPS decided to be proactive in addressing this issue. In 2012, CWD was confirmed for the first time in Pennsylvania; however, as of 2015, the closest wild case of CWD is over 70 miles from the park boundary.

Is the meat being donated?

Yes, meat is donated to the Central Pennsylvania Food Bank which distributes the meat to food pantries and soup kitchens, consistent with guidance from the NPS Office of Public Health. If a wild case of CWD were confirmed within 60 miles of the park boundary or the park fell within a state-established CWD containment zone, then the possibility of donation would be determined by guidelines provided in the PA Chronic Wasting Disease Management Plan and through consultation with the NPS Office of Public Health. The NPS cannot sell the meat. The disposition of any antlers and hides is determined by the PGC.

How did the NPS determine the level of adequate tree regeneration?

Adequate regeneration is considered to be reached when 70% of forests monitoring plots exhibit the equivalent of 8,079 tree seedlings per acre. This figure was adopted based on the Pennsylvania Regeneration Study conducted by the U.S. Forest Service and PA Department of Conservation and Natural Resources. This figure is similar to that adopted across Pennsylvania to ensure adequate forest regeneration.

Have the forests in the park reached adequate tree regeneration?

Not yet. While we have observed great improvement in forest regeneration, preliminary data indicate only 63% of the monitoring plots have an adequate number of tree seedlings. This is a tremendous improvement, however, from zero plots with an adequate number of tree seedlings prior to implementation of the plan in 2010. Recovery of the forest as deer density is reduced will take time, and adequate tree regeneration may not be observed immediately upon achievement of initial target density. The deer population will be maintained at the initial target density (31-35 deer per square mile) until forest monitoring indicates the target herd density should be adjusted.

When does sharpshooting occur in the park?

All deer management actions take place between November and March, during hours that the park is closed.

How does the NPS make sure that the public is safe? Who is conducting the action?

The safety of park visitors, neighbors, staff, motorists, and others is our top priority. Extensive safety measures are in place to ensure a safe, humane, and successful operation. One of the primary elements of ensuring operational and public safety is to use highly qualified and experienced marksmen that are familiar with the park and with conducting lethal activities in a highly suburbanized environment. Therefore, the NPS is working with professional biologists from the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (USDA-WIS). USDA-WIS has a long history of conducting safe and effective actions to reduce wildlife populations in urban areas, including the reduction of deer populations at multiple locations in Greater Philadelphia Area. Additional safety measures that are being employed include:

- Lethal reduction activities are conducted during periods of low visitation and while the park is closed (after dark);
- Activities involving firearms are conducted in compliance with all federal firearm laws administered by the Bureau of Alcohol, Tobacco, Firearms, and Explosives;
- Bait is used to attract deer to safe removal locations away from public use areas;
- Lethal reduction activities do not take place within established safety zones along the park boundary, open roadways and occupied buildings;
- Shooting actions are conducted from an elevated position to ensure a downward trajectory;
- Shooting actions utilize specialized ammunition that is safe for use in urban areas (minimizes travel range of projectile) and the environment (non-lead);
- NPS personnel patrol the park during removal actions to ensure compliance with park closures and public safety measures and accompany USDA-WS teams in the field.

Will the NPS provide more specific information on when these activities are taking place?

Public safety is our top priority and in order to make this action as safe as possible for park visitors, neighbors, staff, and motorists, we share specific information on reduction activities with local law enforcement and other state and local officials to ensure coordination. Details of implementation (e.g. what, when, and where actions on the ground will take place) are not provided to the public. We work closely with local and state officials to be sure we have a comprehensive communications strategy that ensures public safety.

Was the NPS sued over the plan?

In November 2009, several groups filed a complaint in Federal District Court challenging the Record of Decision for the Valley Forge NHP White-Tailed Deer Management Plan / Environmental Impact Statement, asserting that in its planning process and decision the NPS had failed to comply with various federal statutes and regulations. On October 27, 2010, US District Judge Mitchell Goldberg issued a decision upholding the Record of Decision and stating that not only was the NPS decision neither arbitrary nor capricious but that, in fact it "exemplifies a fully informed decision." Injunctions filed in November 2010 also were denied by the court.

What is the cost of the selected alternative?

The cost for this action has ranged from \$97,000 to \$173,000 annually. Estimated cost per year for population maintenance using reproductive control ranges from \$108,363 to \$194,517 annually.

There are many factors that affect forest regeneration - why is the NPS focusing on deer?

Long-term monitoring of fenced and unfenced areas in park forests clearly demonstrate that high deer density was the dominant force in the park limiting the growth and maturation of the park's forests, due to over-browsing of tree and shrub seedlings. Young trees and shrubs grew to only a few inches tall before being eaten by deer and other herbivores.

The bigger picture includes the need for increased management of non-native invasive plants,

work that already takes place in the park. New silvicultural practices and restoration of the forests will take place when the browsing pressure is reduced to a point at which forests can regenerate.

Why not allow local hunters to reduce the deer population for free?

Under federal law, hunting isn't allowed at a national park unless it was specifically authorized in a park's enabling (or subsequent) legislation. The law establishing Valley Forge as a unit of the national park system was passed in 1976 and does not authorize hunting. Due to the number of comments from the public on this topic, public hunting was evaluated during the development of the plan, based on factors of cost, safety, efficiency, and ability to achieve management objectives. The cost of implementation of a public hunting option was similar to sharpshooting. Sharpshooting, however, provides significant advantages over a controlled public hunt in regard to public safety, efficiency, and the ability to achieve the target deer density.

Did you consider using a reproductive control agent?

The NPS evaluated the advantages, disadvantages, effectiveness, and costs of using reproductive control either alone or in combination with lethal removal actions. The park selected the use of a combination of lethal and nonlethal actions. Under the selected alternative, the park will use sharpshooting to achieve and maintain the deer population at the target density until an acceptable chemical reproductive control agent is available. Once an acceptable reproductive control agent is available, the park will switch to reproductive control.

Appendix E of the Final plan/EIS provides a comprehensive overview of the status of the science on reproductive control. At the request of animal preservation groups and others, this appendix was reviewed by experts in the field of reproductive science and the NPS revised and updated information on reproductive control in the Final plan/EIS based on expert comments. Expert review and comment was provided by Dr. Allen Rutberg and Dr. Jay Kirkpatrick.

How does the NPS decide that a reproductive control agent is "acceptable"?

The NPS established the criteria for an acceptable reproductive control agent and made this determination in consultation with technical experts. Our criteria for an acceptable reproductive control agent are that: (1) it is 85% to 100% effective for 3-5 years; (2) it can be delivered remotely without having to handle the deer; (3) It would not leave hormonal residue in the meat, which would prevent the meat from being used for human consumption; and (4) it would not cause significant changes in deer behavior. No currently available reproductive control agents meet these criteria.

Once the deer population is reduced won't deer move into the park from surrounding areas and remaining deer simply reproduce more?

Park tracking data indicate that there is little movement across the park boundary – either deer coming in or deer going out. Female deer spend most of their time within the park and travel an average distance of 401 to 1400 feet from the park boundary. These data also suggest deer density in areas surrounding the park is similar to the target deer density of 31 to 35 deer per square mile. The home range of deer in the park is also very small – less than ½ a square mile.

Although males may travel further during dispersal, we do not expect significant immigration/emigration (deer moving into or out of the park).

White-tailed deer have a high reproductive capacity and reproductive rate is considered a primary indicator of deer condition. As expected, the deer reproductive rate has increased over time as deer density has been reduced and habitat quality improved. This is considered a long-term beneficial impact, because it indicates deer are in good or improved condition.

The plan/EIS is intended to guide long-term management of white-tailed deer in the park. While the reproductive rate of deer may increase in response to a decrease in the overall population and some deer may move into the park from the surrounding area, future deer removal actions would take into consideration any population growth and adjust management actions (e.g., number of individuals removed or treated) as needed through the adaptive management process.

Many park visitors love seeing the deer. Are they still able to see deer when they visit the park?

Yes, there are deer in the park. Maintaining a deer population in the park is one of the objectives of the plan/EIS.

Have the number of deer-vehicle collisions go down as a result of this action?

Prior to implementation of the plan, an estimated 86 deer-vehicle collisions occurred within the park annually. The NPS has observed that as the deer population has decreased, the number of deer-vehicle collisions in the park has also decreased.

Who do I contact if I have questions or concerns?

Please contact our staff at vafo_superintendent@nps.gov. Please contact your local law enforcement agency if you have concerns after park hours.